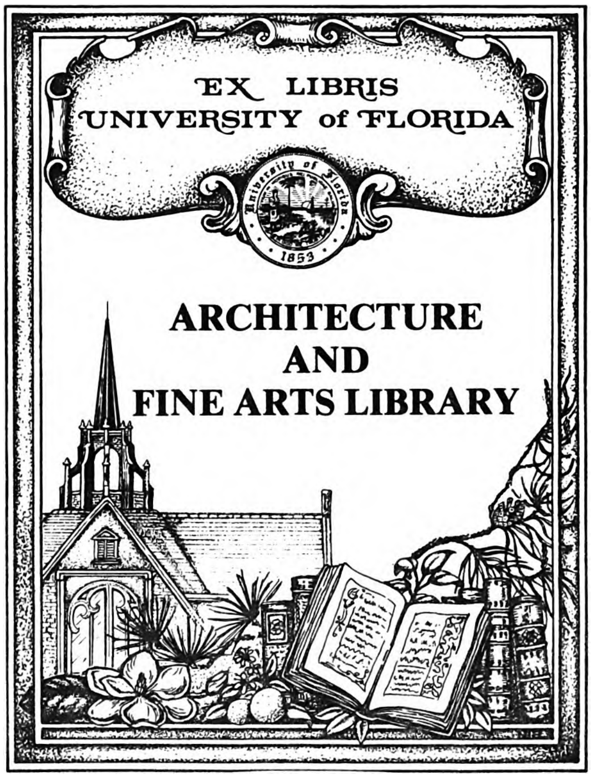

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THE
WESTERN ARCHITECT
ARCHITECTURE ALLIED ARTS

Volume XXXIV. Number 3

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MARCH, 1925

TEXT PAGES

PLATES AND ILLUSTRATIONS

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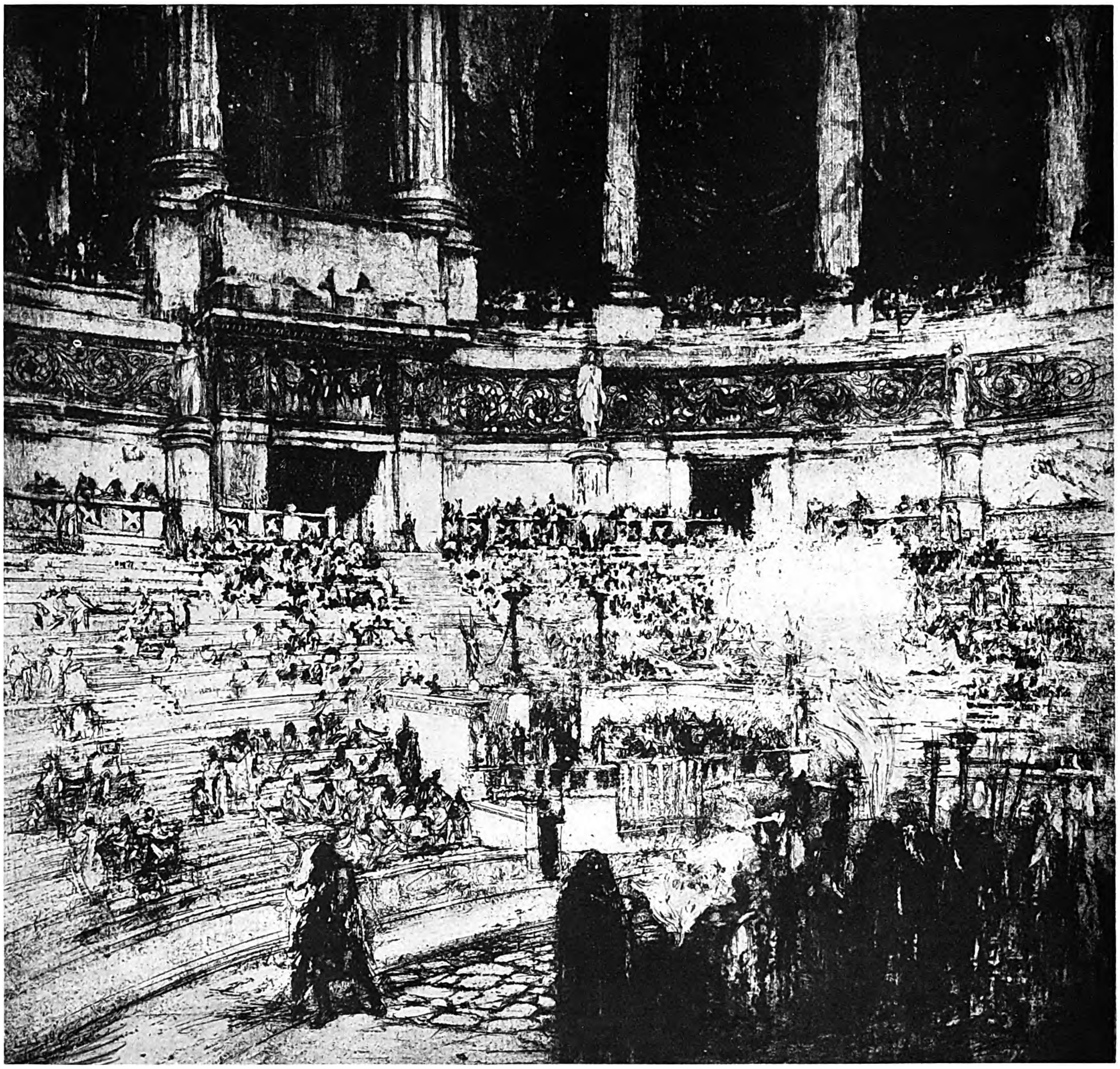
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A TRAGEDY BY SOPHOCLES
PERFORMED BEFORE THE EMPEROR HADRIAN
FROM AN ETCHING BY WILLIAM WALCOT

THE
WESTERN ARCHITECT

ARCHITECTURE ALLIED ARTS

Volume XXXIV. MARCH, 1925 Number 3

The Institute's Fifty-Eighth Annual Convention

The fifty-eighth annual convention of the American Institute of Architects, which is to be held at New York in April, promises to be a rather stupendous affair. Not that the convention program itself will present anything unusual, but the intellectual and physical attractions which will surround and accompany the gathering are far beyond anything heretofore presented to those in attendance upon an Institute meeting. Under the direction of the exhibition committee of which Harvey Wiley Corbett is chairman, as that distinguished architect puts it, "For the first time in our history we are really going to see assembled, in one show, the most representative work of the entire country." The regional directors and the local Chapters are at work collecting the best examples of their several sections and with Mr. Corbett's leadership the "show," as he calls it, will be entirely up to specifications. Then there will be a "Small House" exhibit in which will be shown examples of all costs and grades with the practical exhibition of all the conveniences, furnishings and decorations that go to make the small house livable. The Architectural and Allied Arts Exposition presented by the Institute is timed with the International Town, City and Regional Planning Congress which provides an International City Planning Exhibit, that becomes also a part of the Institute exhibition program. President D. Everett Waid has his program. The president of the New York Chapter, Benjamin W. Morris, is also organizing. Then as if these activities and sights were not enough to keep delegates and friends reasonably busy, there remain the activities of Donn Barber, chairman of the Entertainment Committee to be taken into account. That "a good time will be had by all" will not be doubted by those who know Mr. Barber. Therefore it is a foregone conclusion that the fifty-eighth convention of the Institute will have a much larger attendance than any other in its history, and no matter what the distance may be, the attendance will pay with usurious interest. And, though not an "Exhibit," there is one building the sight of which to many will fully recompense. That is the Madison Square Garden and tower, with the famous Diana, linking together the names of two of America's greatest artists, Stanford White and Augustus Saint-Gaudens. And iconoclastic "business" demands that this representative work shall be torn down in May to be replaced by another structure.

Chicago's Architectural Advancement Founded in Architects' Club

The most significant, as well as interesting event of recent happening in architectural annals is the organization and definite establishment in its own quarters of the Architect's Club in Chicago. Significant, because it marks the culmination of architectural effort through organization in the direction of definite professional establishment. And this point has been reached through the faithful, persistent, and often discouraging devotion of those who not only practiced architecture as a profession but were ambitious for its improvement in practice and ethics. Some forty years ago—in 1884, to be exact—the secretary of the Chicago Chapter of the Institute said such an organization existed, but had not held a meeting in two years. Led by Chicago architects, with the enthusiastic and intelligent assistance of members of the profession from Denver to Rochester, the Western Association of Architects was formed and which was the reviving force that rejuvenated the older society. The combination of the two bodies produced the present truly national character of the American Institute of Architects. The merger mixed the conservatism of the eastern practitioner with the more radical, and possibly more enthusiastic viewpoint of those in the large and undefined territory called "the Middle West." It was the initial effort of those who gathered in Chicago, in 1884, that revived a languishing professional spirit and can today in a degree be credited with the organization of the Architect's Club at Chicago. It is due to the "class consciousness" there engendered that the last President of the Institute was from San Francisco and the Chapter most prominent in good works the past year is that at Los Angeles. While the

national society sought the country's architectural welfare abroad, there was another society in Chicago, that of the draftsmen, which, since its inception in 1885, has carried through without faltering, the torch of architectural progress. Its early members, its founders, in time became practitioners, and in scanning the roster of officers in the club (its Arbitration Committee being entirely composed of former members) their names in large proportion are found. Now these persistent, always alive and practically energetic devotees of the greatest of the constructive professions have joined in a culminating combination, an ethical union, in which the material greatness of Chicago has its source. The influence of the individual pleaders in professional thought and practice attracted public attention, and won the sympathetic co-operation of influential citizens. As a culmination, one such citizen has deeded to the club his residence for future delivery, because it represents one of the best works of H. H. Richardson, one of America's greatest architects. The purchase of another old and noted residence across the street, provides a clubhouse for present occupancy. That this, The Architects' Club of Chicago, is entirely composed of practicing architects and members of the draftsman organization, in itself speaks of the strength and enthusiastic enterprise of the profession in Chicago. To Charles E. Fox, president of the Illinois Society of Architects, and to Alfred Granger, president of the Chicago Chapter, whose efforts brought about the organization of the club, all honor is due. And this combination of interests, with all the benefits to the whole city that will accrue from it, is effected within forty years since the then secretary of the Institute Chapter discouraged the forming of an organization of architects by saying, "It can't be done. There are not half a dozen architects in Chicago who will have anything to do with each other."

The General Public Acceptance of Zoning Laws

This, the year 1925, promises to be one devoted to the promotion and study of zoning—and "zoning," meaning the orderly arrangement of urban constructions, is not qualified as is the case of all other "zone" nomenclature whose variety, of late, is legion. Like the term, the practice has had its birth and growth during the past twenty-five years. Town-planning preceded it by a few years, but it was soon apparent that it was not enough to widen streets and open parks and vistas. The regulation of the use to which buildings may be put, the area of lot which they may cover and their height in different sections of a city, was found to be necessary to complete livable qualities under modern conditions. Now the "city plan" and "zoning" interlock so that the movement toward better living conditions, from the largest city to the smallest town, is in a manner simultaneous. After the reversion to the L'Infant Washington plan for the capitol city, suggested first by Fitzpatrick and afterward carried out by Burnham, McKim and Olmstead, came the Gookins' plan of wholesale rehabilitation for Chicago, with its lake front docks, canalized river with stationary bridges and electrified subways—all but adopted when that artist-city planner died. The project lay dormant till taken up by Burnham and brought to so successful an issue. New York, Boston, Baltimore, Los Angeles, Pittsburgh among the larger cities, have comprehensive zoning ordinances, and some three hundred twenty other cities and towns throughout the United States, with a population of something like twenty-four millions, have zoning ordinances in effect. Two difficulties confront the advocates of city zoning, one physical and the other what might be termed psychological. In cities like Chicago, Detroit or Cleveland, builded upon a level plain with ability to extend on three sides, the physical problem is comparatively easy. Pittsburgh, of all the greater cities, has the most difficult. At the confluence of two great rivers that form a third, amid a mass of high and precipitous hills and deep gorges that city is built. And yet a practical and comprehensive plan had been evolved and in process of being worked out. The psychology of the matter is in the attitude of the mass of the people to be benefitted. Intense and continuous campaigns of education are necessary in every city in which the leaders in thought, with patriotic impulse, seek to obtain the passage of enabling ordinances for the relief from present conditions and the future well-being of the citizens. This is being slowly but effectively accomplished, and much is due to lectures upon the subject by those best qualified, of which two such lectures, those delivered in the Carnegie Institute, Department of Fine Arts at Pittsburgh during March by Andrew Wright Crawford and Harvey Wiley Corbett the architect, of New York, are outstanding examples.

It is a matter for professional congratulation that architects have lead and are leading this movement toward the better arrangement of towns and cities, both in the capacity of lecturers, and as members of the projecting and controlling commissions and in the direct work of planning.

Architects' Leadership In the Industrial Field

Since the inception of those get-together combinations of all component interests in the building field called "Congresses," combinations of spirit and not commercial—architects have headed their activities and deliberations. This work and leadership has been performed in no perfunctory manner. Men of the profession have devoted long hours and great labors in the desire to elevate and harmonize the often conflicting elements that

make up the combination which produces the completed building. Names of these men will not be found in history, but the effect of their devoted services will last and be the saving ingredient in the building industry of the future. The long and strenuous efforts, in many departments, of Robert D. Kohn, together with those of Burt L. Fenner and D. Everett Waid, of New York; those of William Stanley Parker, of Boston, and David Knickerbacker Boyd, of Philadelphia, are more outstanding. But from east to farthest West there are few cities in which the architect of high professional attainment has not given much of his time and best talent to the solution of industrial problems, and in leadersnip has directed a course beneficial to his community. While these individual efforts have been of necessity local to the city, they have had almost equal effect in a general advancement of understanding and harmony through their demonstration of the benefits to be derived from cooperation. Until these leaders became active in the work there had been no common ground upon which employee and employer could, or would, meet. Until this meeting and exchange of views the labor element opposed the teaching of apprentices. The conferences between contractors and manufacturers has tended toward a better product and greater standardization. In recognition of the long service in the work in Philadelphia, upon his resignation as President of the Philadelphia Congress, D. Knickerbacker Boyd was recently made the honor guest at a dinner, given as a testimonal of appreciation for his long and efficient work in placing the building industry upon a higher plane of ethics and bringing about a closer bond of relationship between employer and employee. And these activities have been many sided as they have been unselfish, continuous and effective, ranging from Mr. Boyd's visits as an industrial missionary, as it were, to three-fourths of the Chapters of the Institute; collaboration with the Department of Commerce in efforts to mitigate seasonal unemployment; his work with building material associations on standardization. Most important, perhaps, have been his efforts toward the establishment of apprenticeship training and the creation of a pride of craft. These activities covered an extended field and had to do with educational institutions, associations of contractors, labor organizations and the promotion of a public sentiment and awakening to the vital necessity for the advancement and reforms which he and his co-laborers advocated. This is not the first testimonial, nor will it be the last, received by this architect for his services to his generation. With many others he is bringing honor and public appreciation to the architectural profession.

Should the Institute Seek Closer Relations with Crafts Training

It is an interesting subject, well worth consideration and debate, which centers in the question, "shall the Institute as an organization and through its Chapters take an active part in National apprenticeship training?" In general, the Committee on Industrial Relations has this educational feature in hand. But requests are coming, from crafts schools in one extreme of the country to national trades' organizations at the other, and the matter is squarely presented to the Institute to decide how far it is feasible or prudent for it actively to participate in organization and support of trades' schools. Its membership in the National Building Congress movement with its encouragement of the formation of local branches, and the work in the direction of apprenticeship training projected by its Committee on Industrial Relations, seem to urge that a greater and closer co-operation in apprenticeship training is almost forced upon it. It is not in any spirit of pessimism that we offer the opinion that the work in this direction as at present outlined is as far as it is prudent and possible for the Institute to act. The field of Institute activities is already large, and while carried on with enthusiasm by committees and Chapters, the active work in both is done by a very small percentage of the not large membership. The Illinois Chapter, for instance, has done much constructive work in placing the profession before the public as a body which enters into all civic and state activities that touch on better living conditions both professional and social. Its activities, judging by the attendance on meetings, have been carried on by less than thirty, and possibly nearer half a dozen members, though it has the "moral support" of all its members. The same condition rules in all Chapters. A few who "love their fellow man" and are willing to make sacrifices for the advancement of the profession, do the work. There is no doubt that the training of workmen in the crafts is most vital to architectural progress, and no sacrifice is too great to make in its advancement. Yet, to go farther than the present plan of encouragement would mean the practical abandonment of many other activities which are of corresponding necessity and value. For the education of the public in the way of professional appreciation is no more difficult than the equally important task of bringing the rank and file of Chapter membership to see their duty to their laboring associates by assisting actively in all Chapter activities. With full team work it is possible that apprenticeship training might be entered into more fully by the Institute, but it cannot be done without it.

Architectural Polychromy

BEING A REVIEW OF "POLYCHROMY"

A Book by Leon V. Solon.

By REXFORD NEWCOMB, A. I. A.

THE fascinating subject of architectural polychromy is one of constantly developing interest and one to which the efforts of scholars are being directed with increasing emphasis. To the student of the History of Architecture, that colorless period known as the Renaissance has always seemed rather outside the stream of normal architectural development. As a matter of fact the Renaissance marks a reversal of practice in the invention of architectural forms. Up to this time, architecture had been an evolution, a growth from simple and primitive beginnings to the intricate constructive feats of the Gothic. The Gothic structure appears the logical culmination of a long sequence of tendencies. The Renaissance, while it is by no means to be considered a retrogression, must be considered in no sense a continuation of medieval structural logic. The Gothic Cathedral was the pinnacle of that line of procedure. The style was perfected; there seemed no further room for development.

The Renaissance, in returning to the forms of the past, becoming as it did an archaeological revival, did serious harm to the progress of creative architecture. Forsaking the aid of *color* which from the earliest of times had been a valuable hand-maid of *form* in the enunciation of architectural thought, the architects of the Renaissance gave pure *form*, as divorced from *color*, a prominence that it had not before received in the whole career of architecture. Palladio in Italy and his followers in England passed the vogue on to our Colonial forbears, who, puritanically minded, reduced what color was left to an almost dead white. The result has been that American architecture has been particularly colorless.

Now it seems that the colorless vogue of the Renaissance was due, in a measure, to a lack of knowledge of the important part that color had played in antique architecture. Indeed our knowledge of the use of antique color has been sadly deficient until comparatively recent times and those, like Hittorff, who early turned their attention to the subject obtained and perpetuated such false notions of antique polychromy as to make their work worse than useless. The appearance of a book such as Mr. Solon has produced comes, therefore, as an interesting and valuable contribution to the subject.

Many, while conversant with the part that colored ceramic revetments played in archaic Greek architecture, by some queer bias, resent the idea of a polychrome architecture of the Periclean Age and insist upon thinking of it as an architecture of pure white marble. That Greek architecture passed through the normal evolution experienced by all architectures previous to the Renaissance and that *color* made a valuable contribution to it is now too well established to need proof. To those who at one time resented the idea of pigmental decoration upon structures of lovely white Pentelic marble, this very polychrome treatment is now heralded as the means whereby these wonderful, but otherwise lifeless, lithic forms may be made to breathe with life. Mr. Solon's valuable studies of the relationship of polychromatic effect to structural significance are the means of making intelligible, and there meaningful, the whole matter of Greek polychromy. And, since what is true of Greek architecture may with equal truth be applied to all Classical types, at least, the far-reaching effect of such researches become apparent.

If the Greek Doric temple, at its best, was anything, it was the very epitome of structural logic; if Greek polychromy meant anything at all, it stood as the ready ally of form in making intelligible the intent of the architect. By applying color to the "supporting" members and "supported" elements of a Greek temple, Mr. Solon shows how color aids in enhancing the structural significance of the building. A series of such experiments enables him to set down the following rules which, be it noted, are general and not applicable to Greek architecture only.

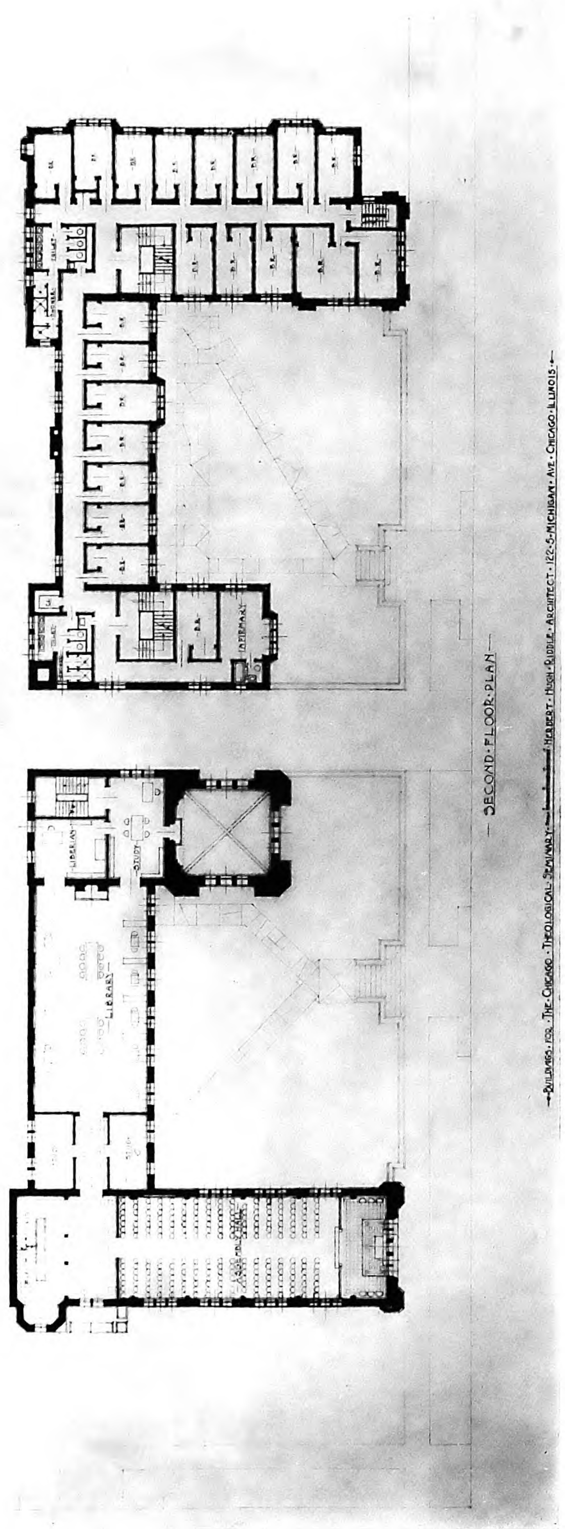
(a) The presence of color upon a weight-sustaining feature depreciates its apparent capacity to fulfil its function.

(b) The application of color to a supported item is advantageous, for the reason that its apparent substantiality is reduced; this diminishes its apparent gravitational thrust, with the result that the sense of structural strength is inversely benefited.

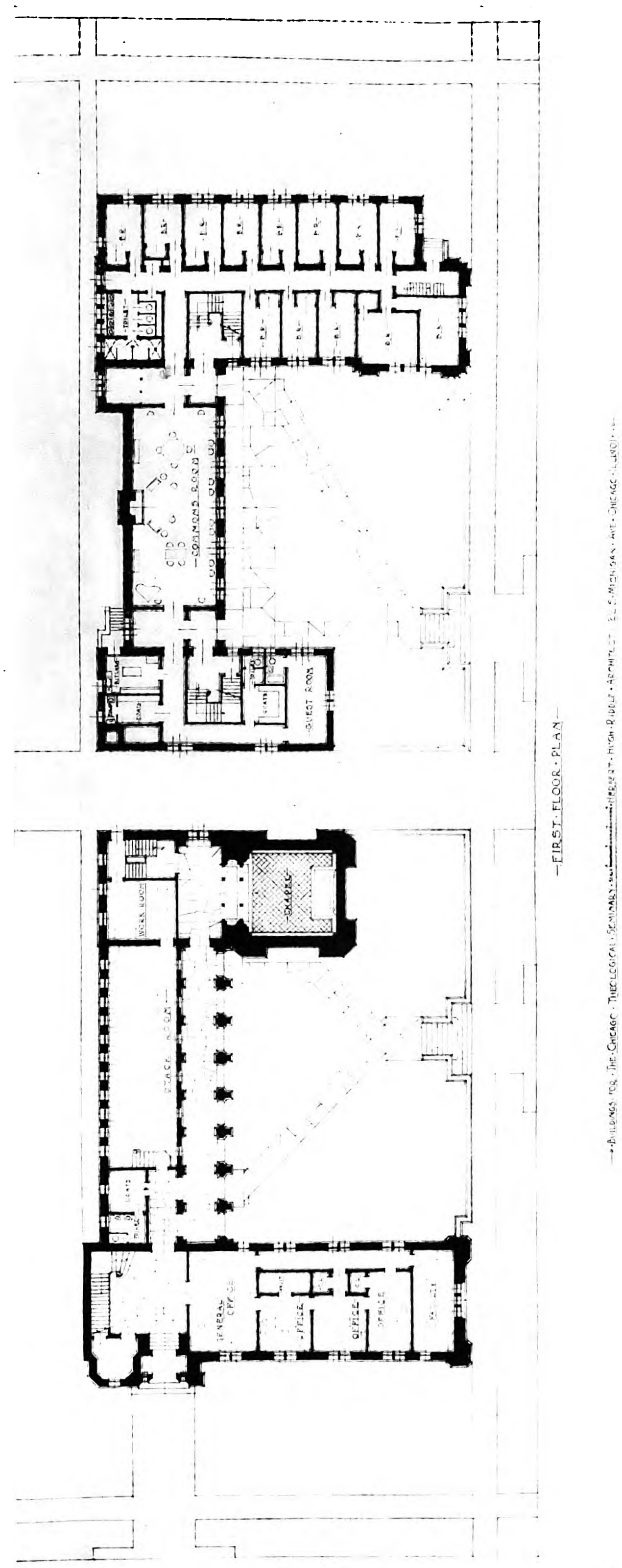
(c) In the polychromy of those items which admit of such treatment, decorative elaboration may augment as structural significance diminishes in the series.

Mr. Solon goes on to say:

"The absolute control of practice by these principles is very apparent in the polychromy of all Greek buildings which have been accurately reconstructed by archaeologists during that period when color decoration was a prominent and essential of architectural effect. Their point of view was not controlled by the peculiarities of their individual form

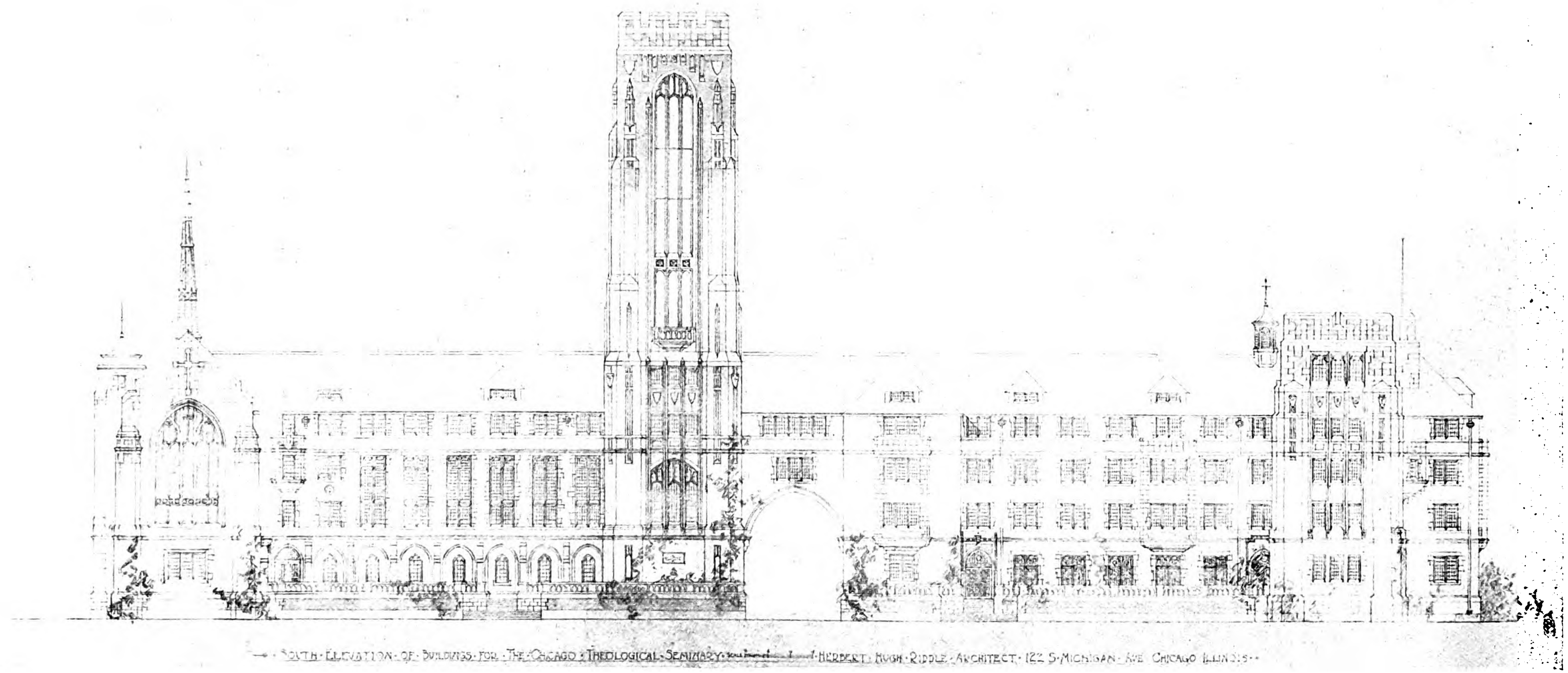


SECOND FLOOR

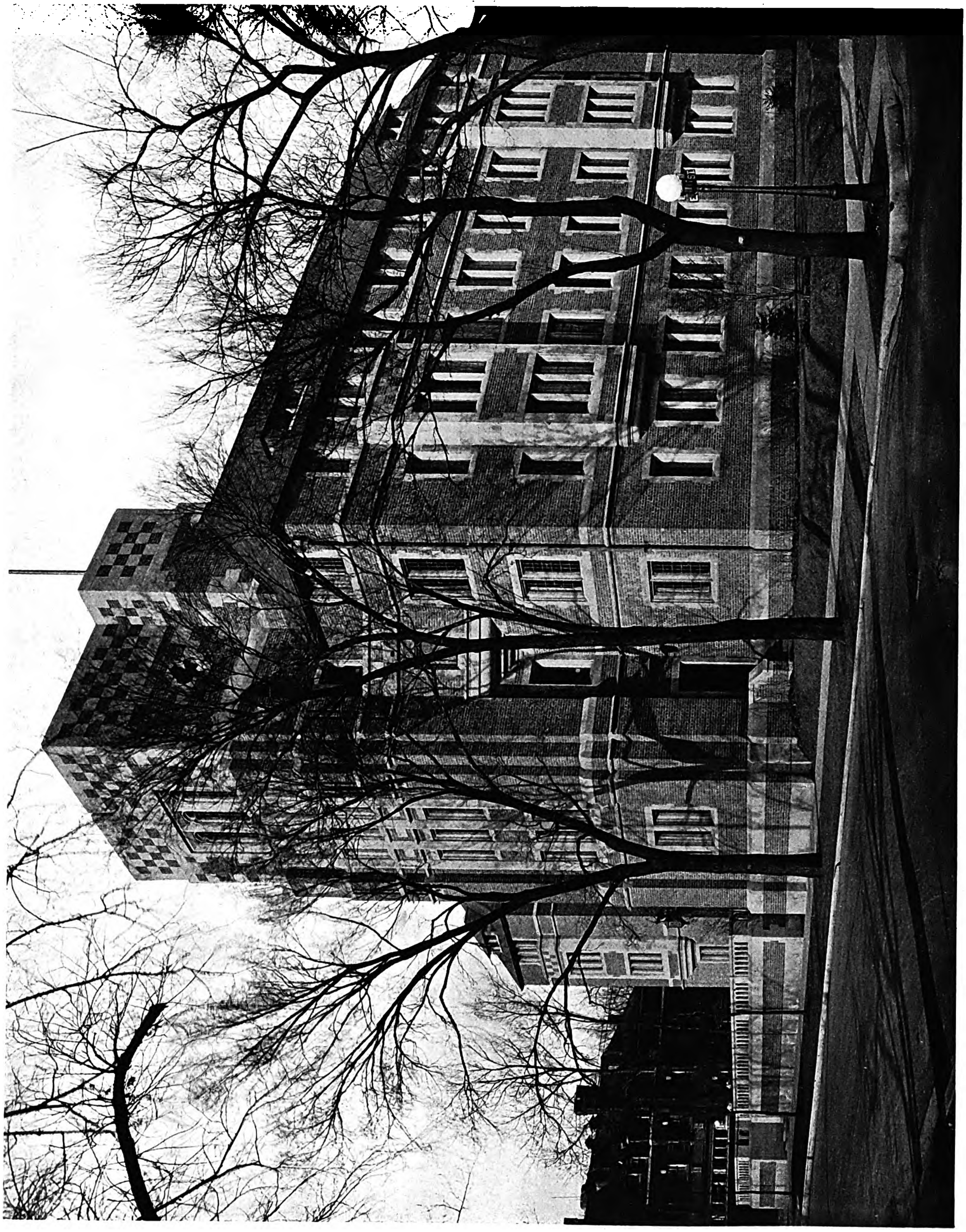


FIRST FLOOR PLANS
BUILDINGS FOR THE CHICAGO THEOLOGICAL SEMINARY, CHICAGO
HERBERT HUGH RIDDLE, ARCHITECT :: :: :: :: ::

PLATE ONE

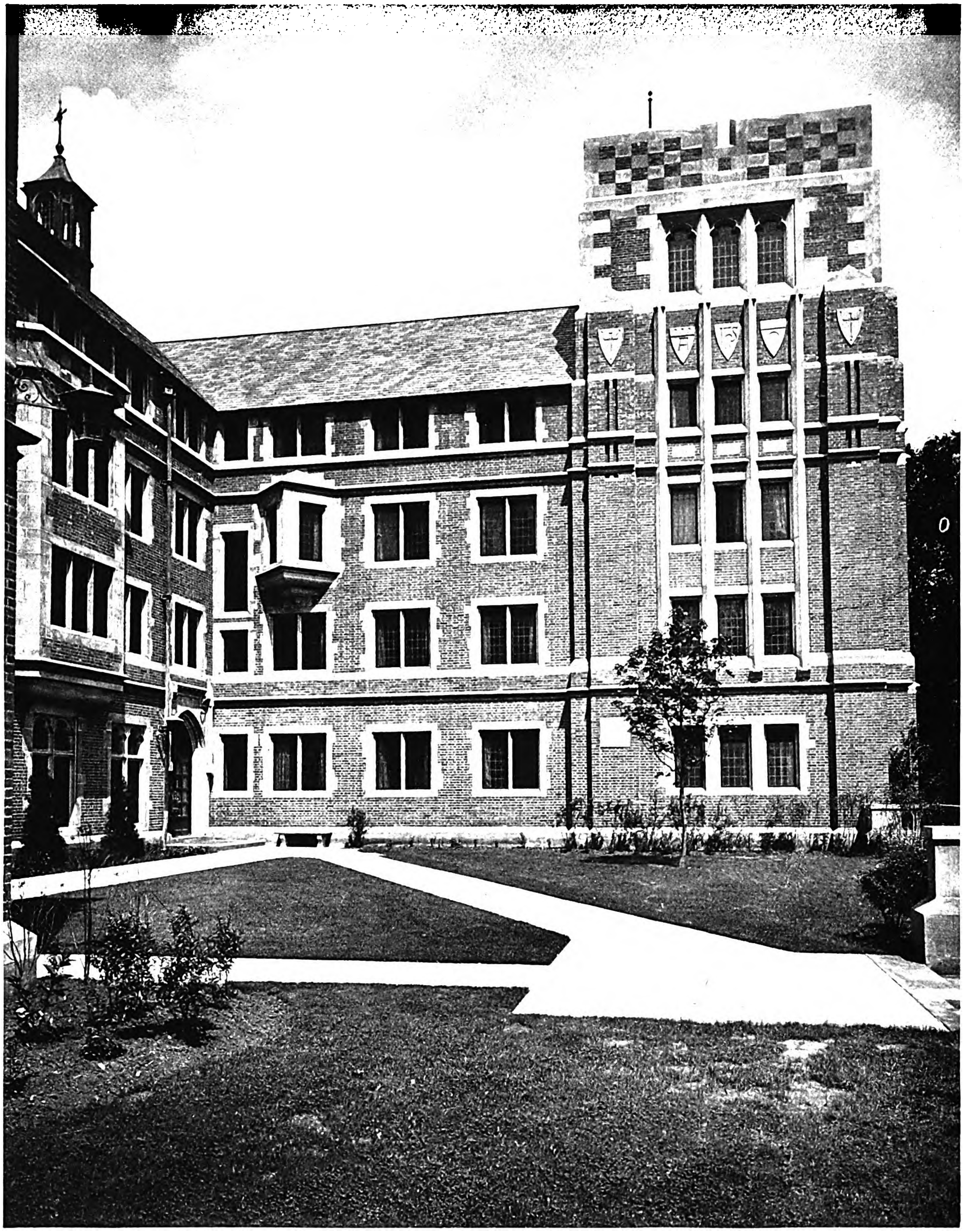


PERSPECTIVE OF SOUTH ELEVATION OF ENTIRE BUILDING, WITH PROPOSED CENTRAL TOWER FEATURE
BUILDINGS FOR CHICAGO THEOLOGICAL SEMINARY, CHICAGO :: :: :: :: :: :: :: :: :: :: ::
HERBERT HUGH RIDDLE, ARCHITECT :: :: :: :: :: :: :: :: :: :: :: :: :: :: :: ::

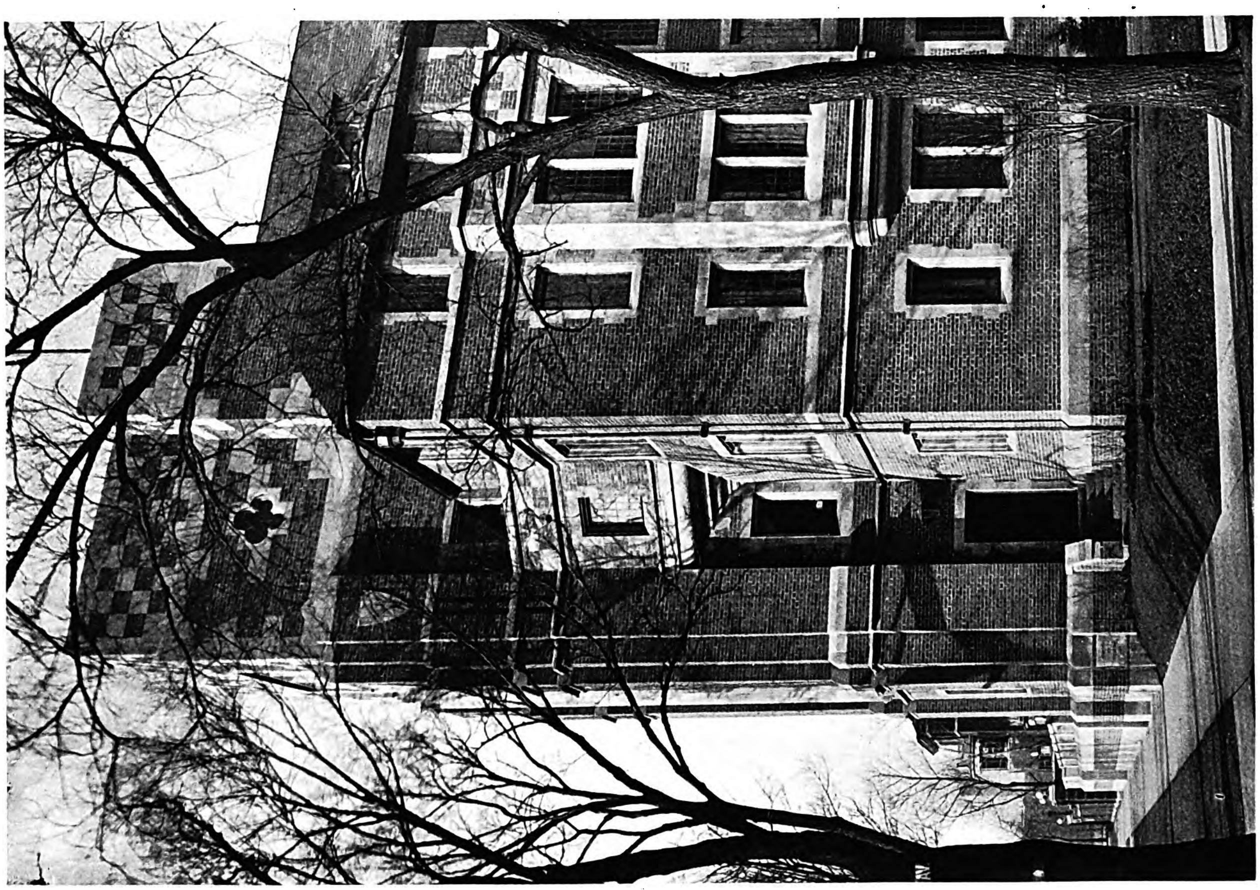


VIEW FROM THE SOUTHEAST
BUILDINGS FOR CHICAGO THEOLOGICAL SEMINARY, CHICAGO
HERBERT HUGH RIDDLE, ARCHITECT :: :: :: ::

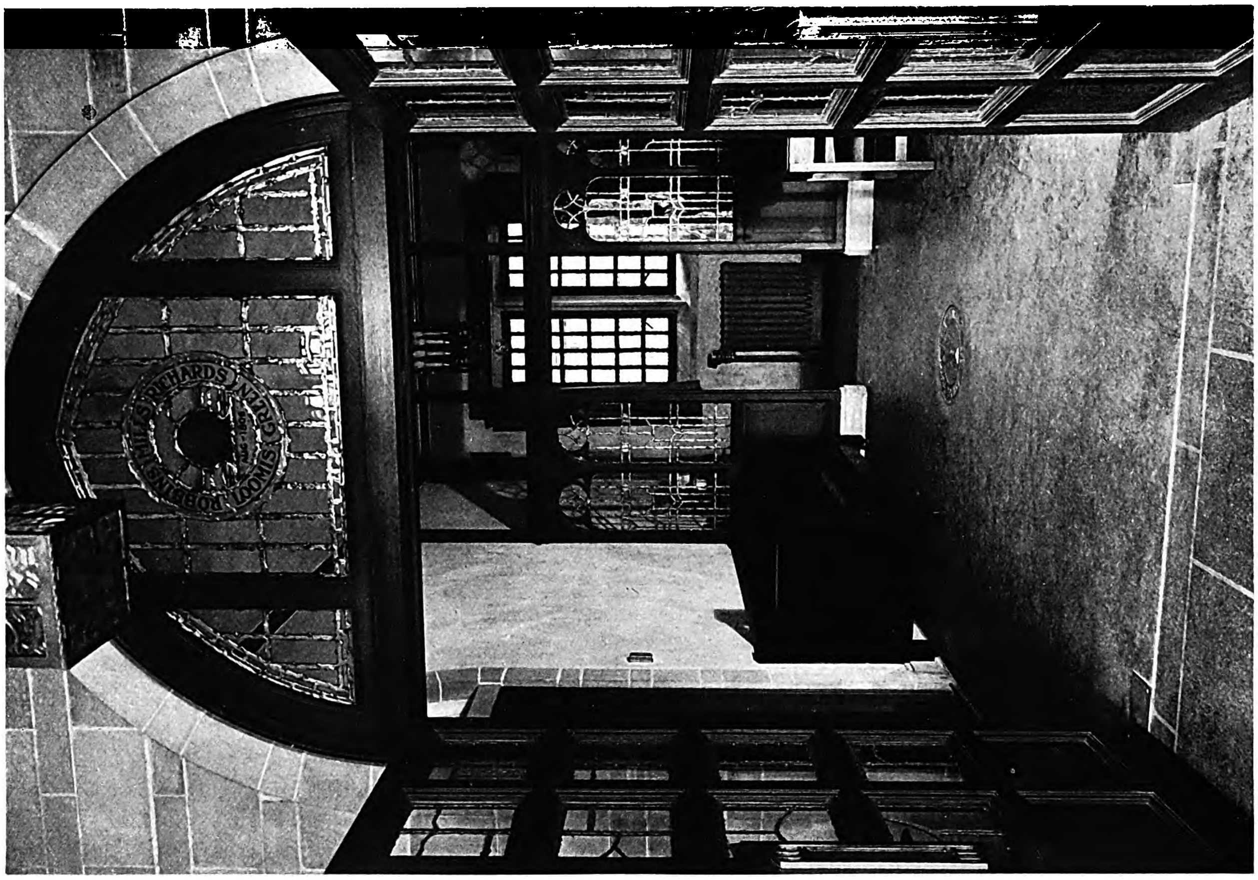
PLATE THREE



VIEW IN COURT
BUILDINGS FOR CHICAGO THEOLOGICAL SEMINARY, CHICAGO
HERBERT HUGH RIDDLE, ARCHITECT :: :: :: :: :: ::



DETAIL OF DOORWAY
BUILDINGS FOR CHICAGO THEOLOGICAL SEMINARY, CHICAGO :: :: :: ::
HERBERT HUGH RIDDLE, ARCHITECT :: :: ::



DETAIL OF ENTRANCE LOBBY

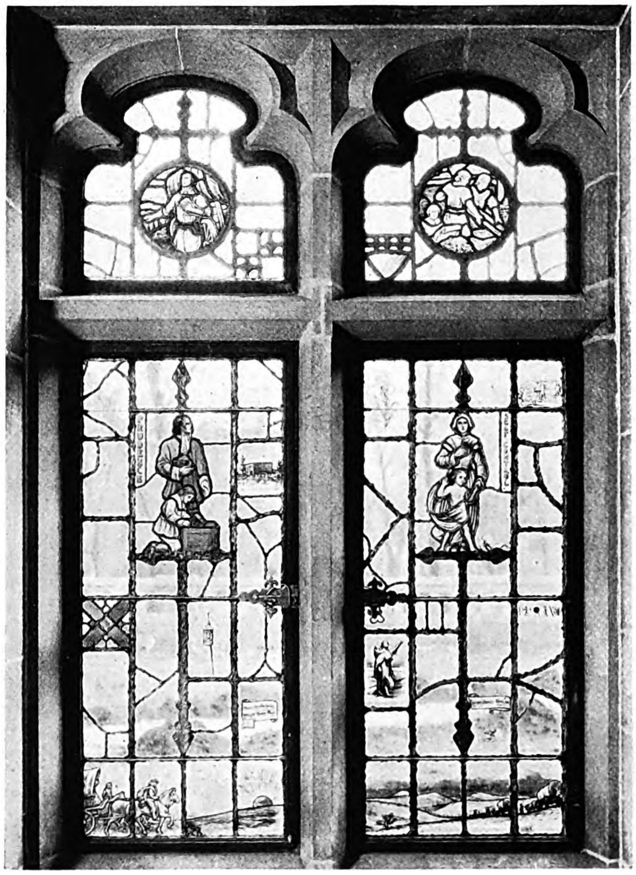


VIEW IN LOUNGE

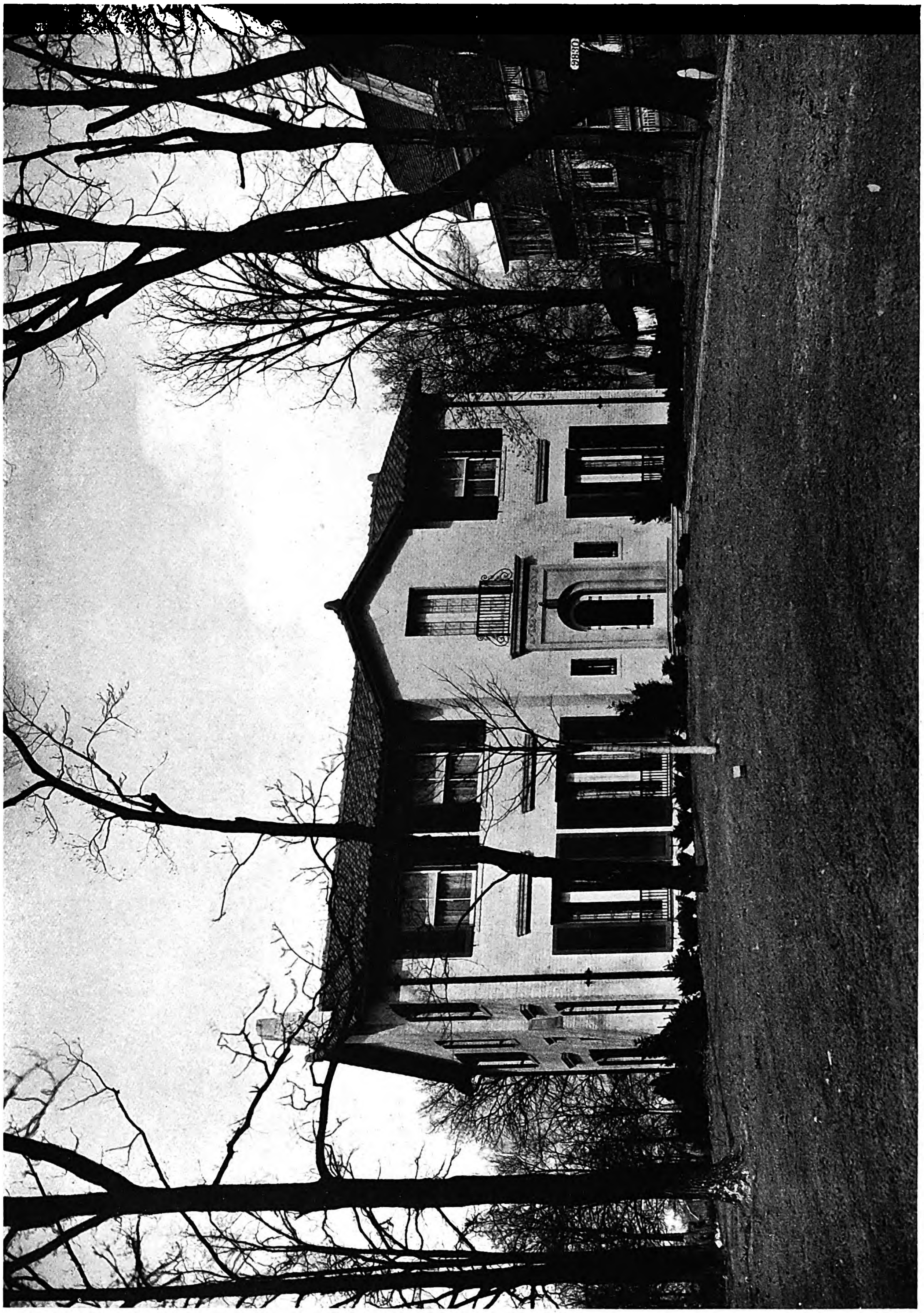


WINDOW

BUILDINGS FOR CHICAGO THEOLOGICAL SEMINARY, CHICAGO
HERBERT HUGH RIDDLE, ARCHITECT :: :: :: :: :: ::

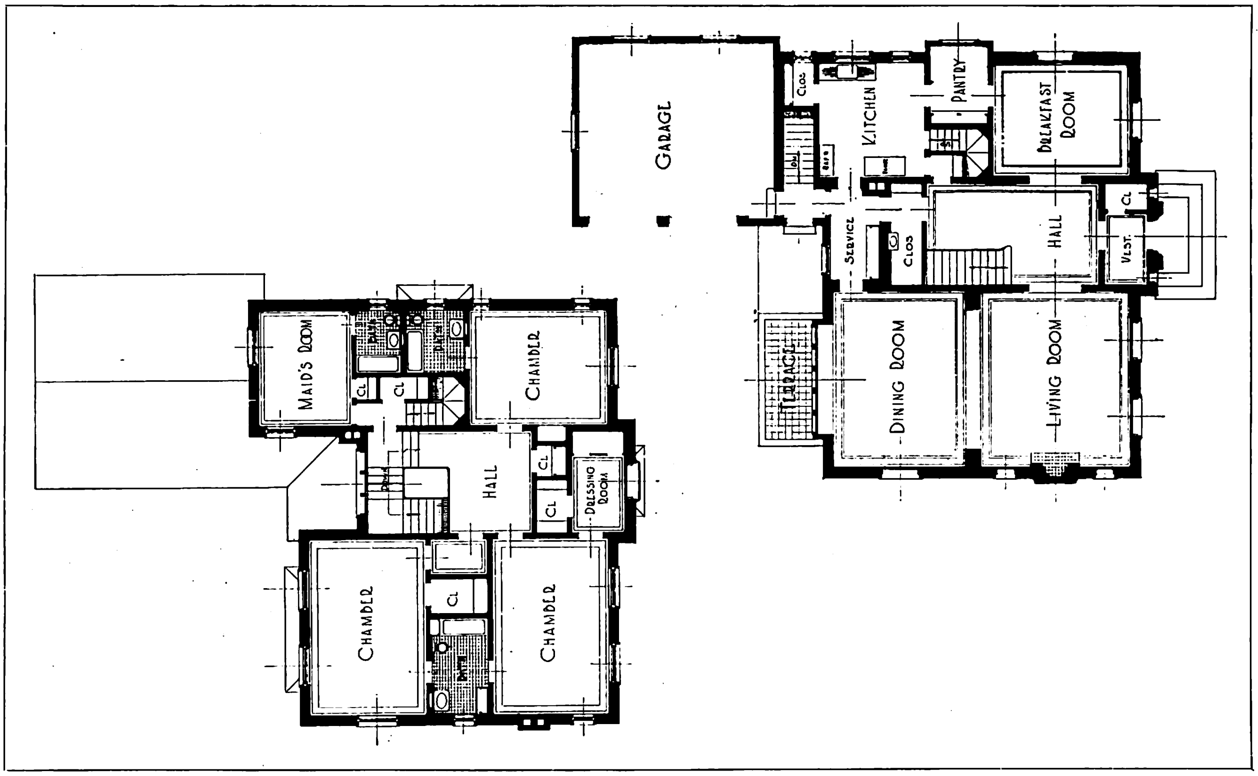


WINDOW

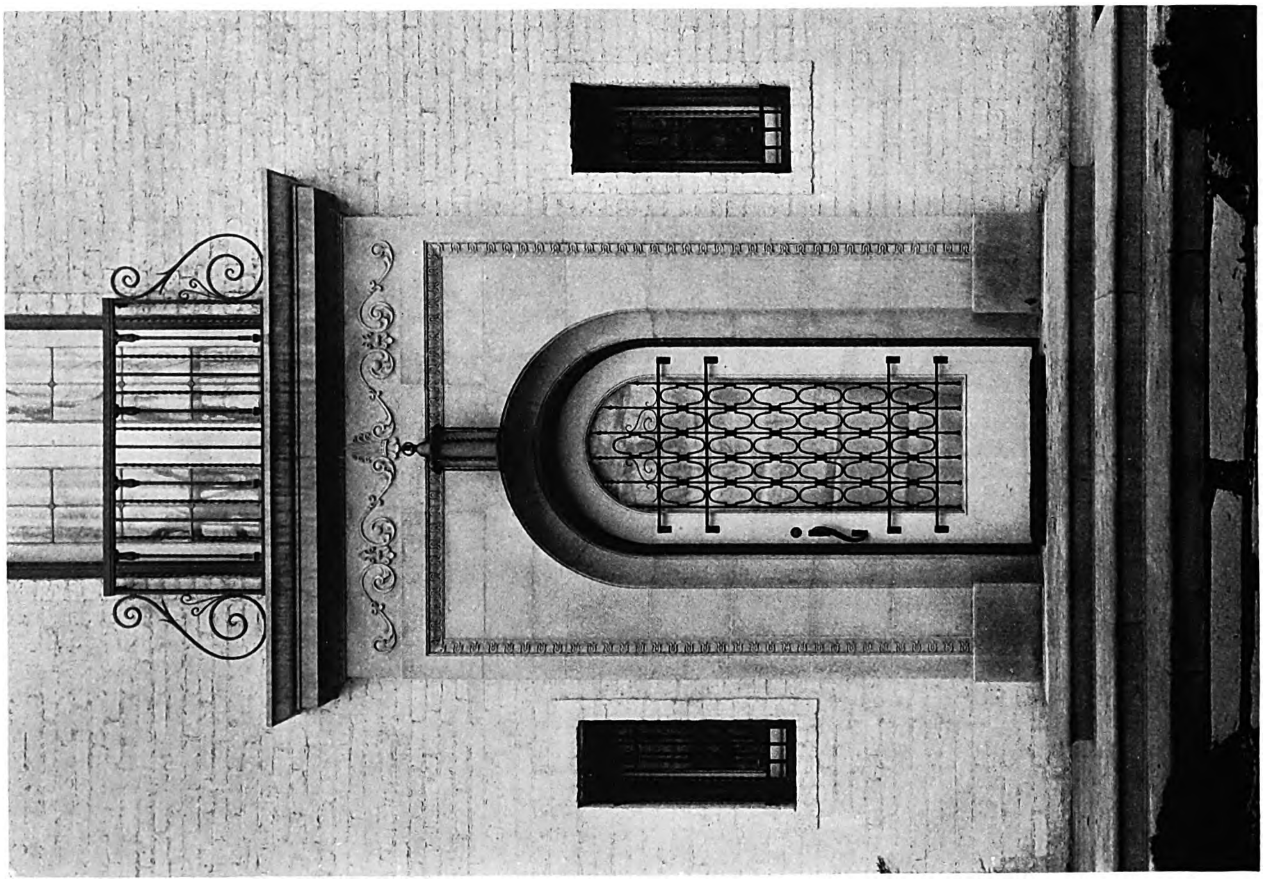


RESIDENCE FOR KATHRYN M. HASKELL, CHICAGO
SIDNEY AND McDONALD LOVELL, ARCHITECTS ::

PLATE SEVEN



PLANS

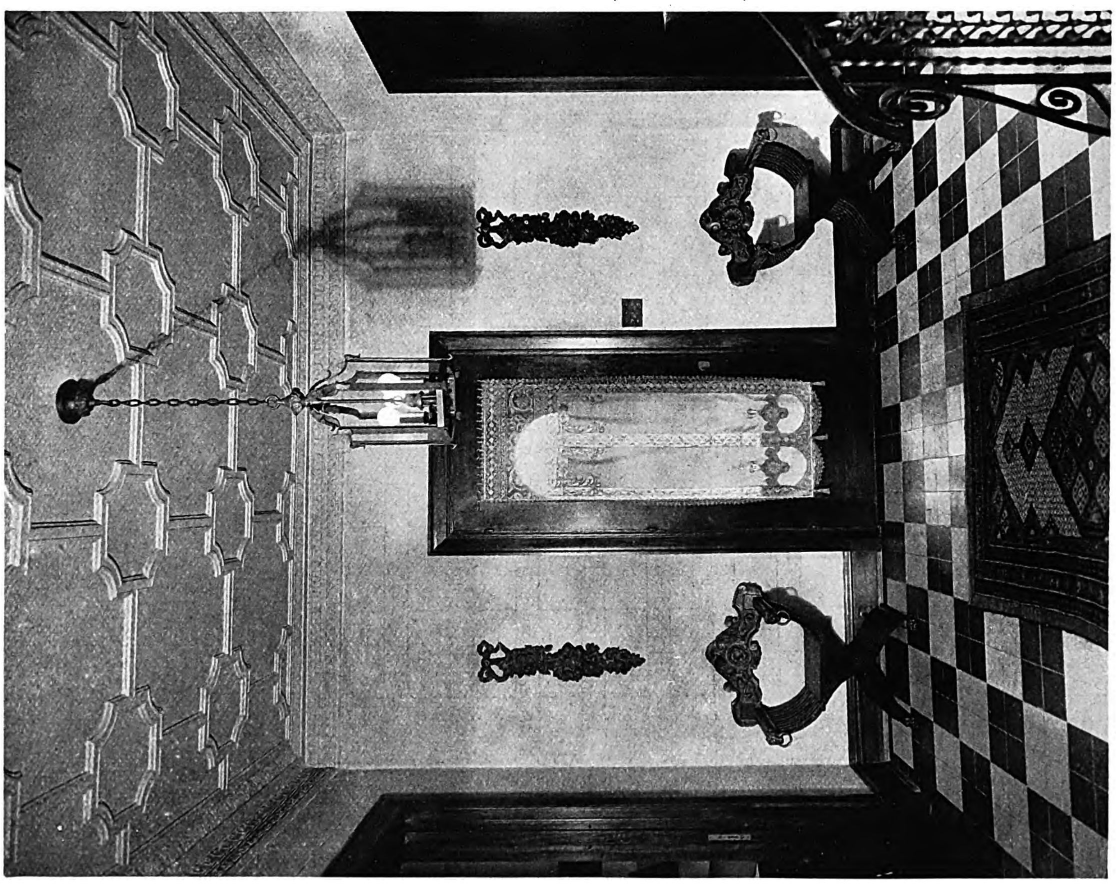


DETAIL OF DOORWAY
RESIDENCE FOR KATHRYN M. HASKELL, CHICAGO
SIDNEY AND McDONALD LOVELL, ARCHITECTS ::



DETAIL OF ENTRANCE
RESIDENCE FOR KATHRYN M. HASKELL, CHICAGO
SIDNEY AND McDONALD LOVELL, ARCHITECTS ::

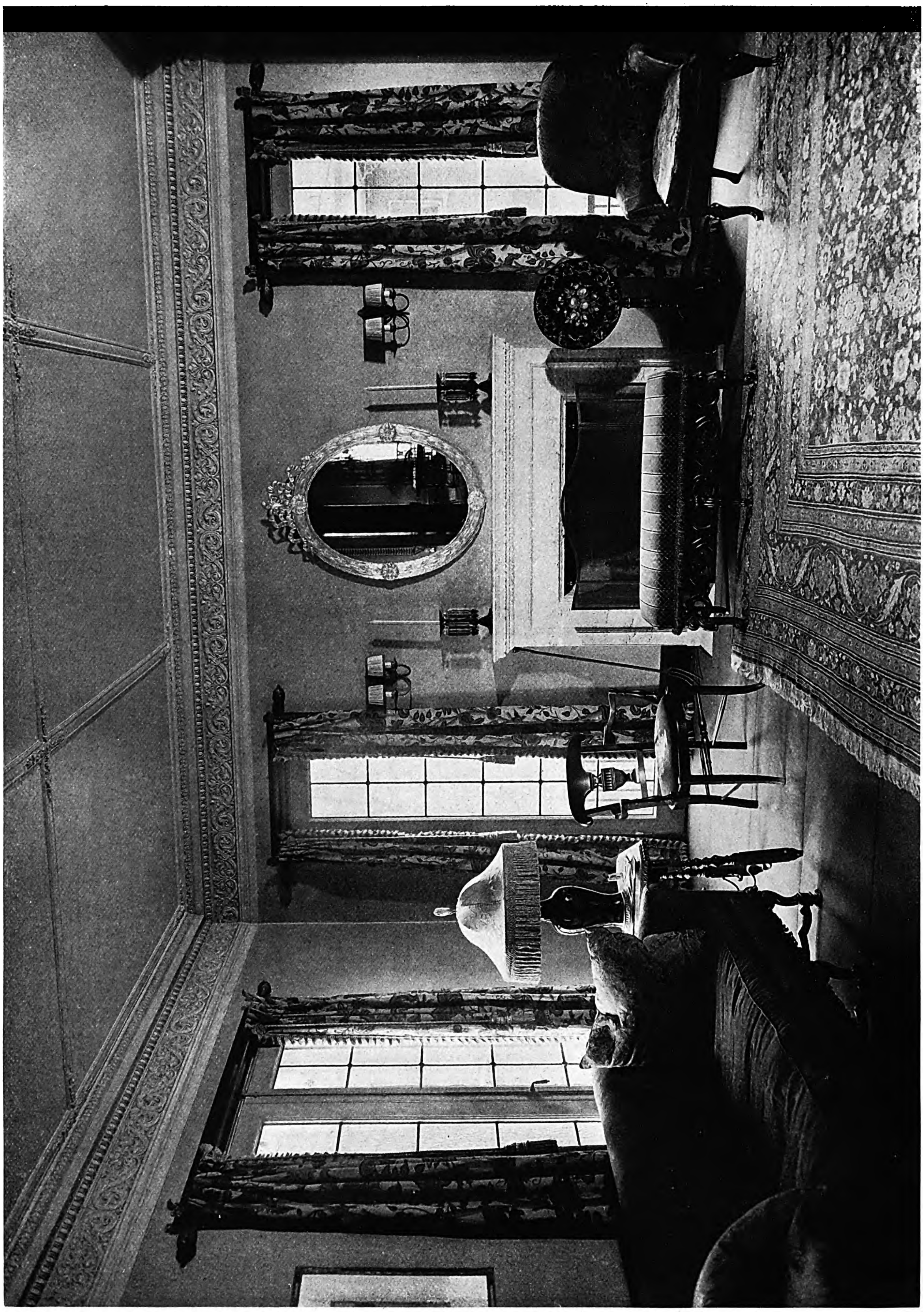
PLATE NINE



ENTRANCE HALL
RESIDENCE FOR KATHRYN M. HASKELL, CHICAGO
SIDNEY AND McDONALD LOVELL, ARCHITECTS ::



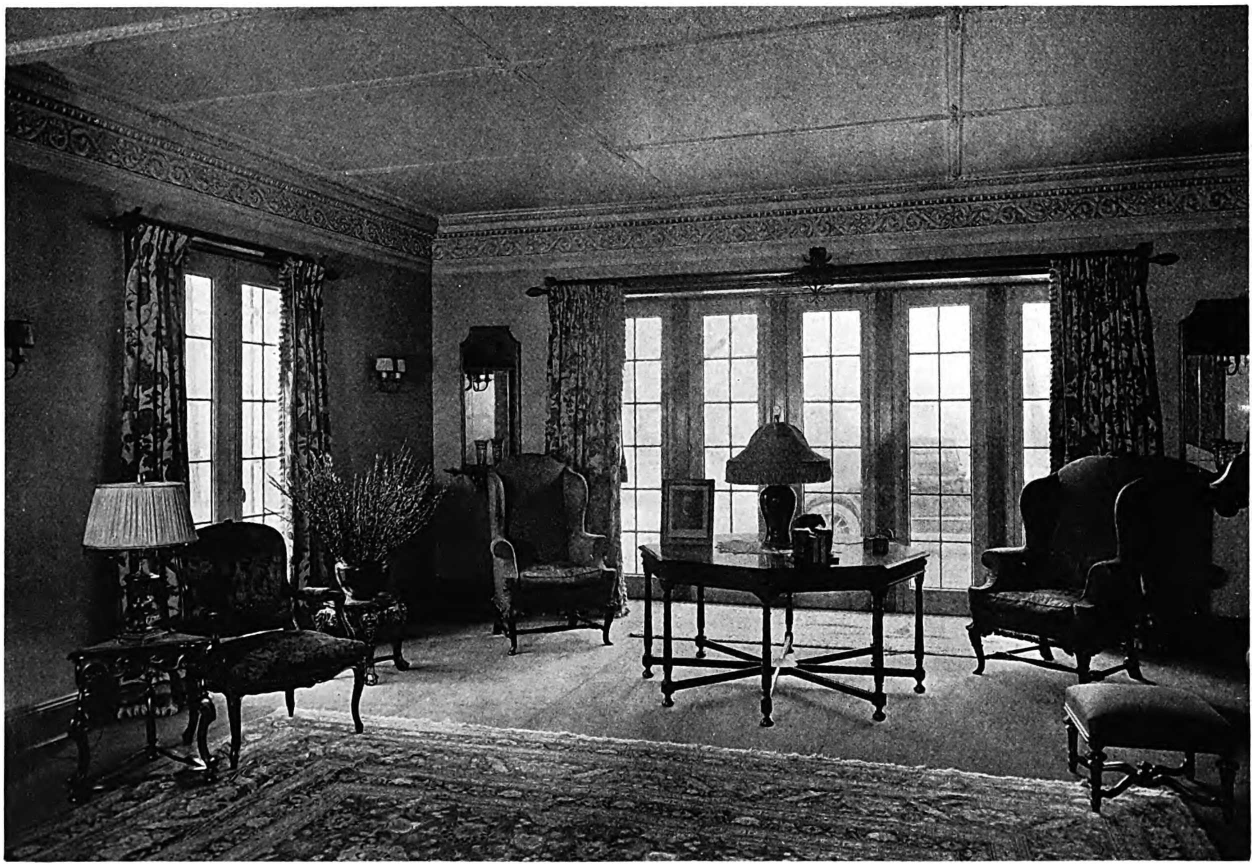
DETAIL OF STAIRWAY



LIVING ROOM
RESIDENCE FOR KATHRYN M. HASKELL, CHICAGO
SIDNEY AND McDONALD LOVELL, ARCHITECTS :

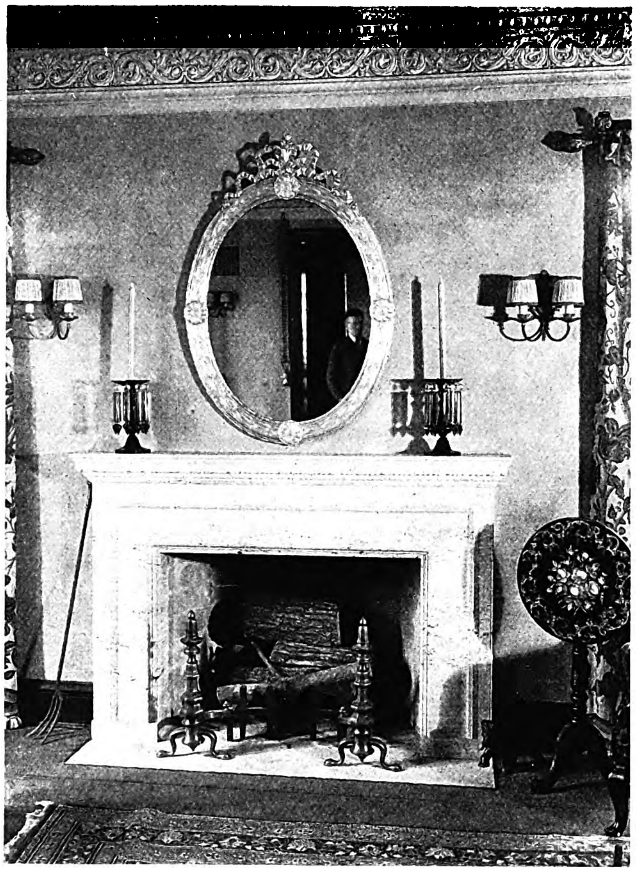
PLATE ELEVEN





DETAILS IN LIVING ROOM

RESIDENCE FOR KATHRYN M. HASKELL, CHICAGO
SIDNEY AND McDONALD LOVELL, ARCHITECTS ::



FIREPLACE

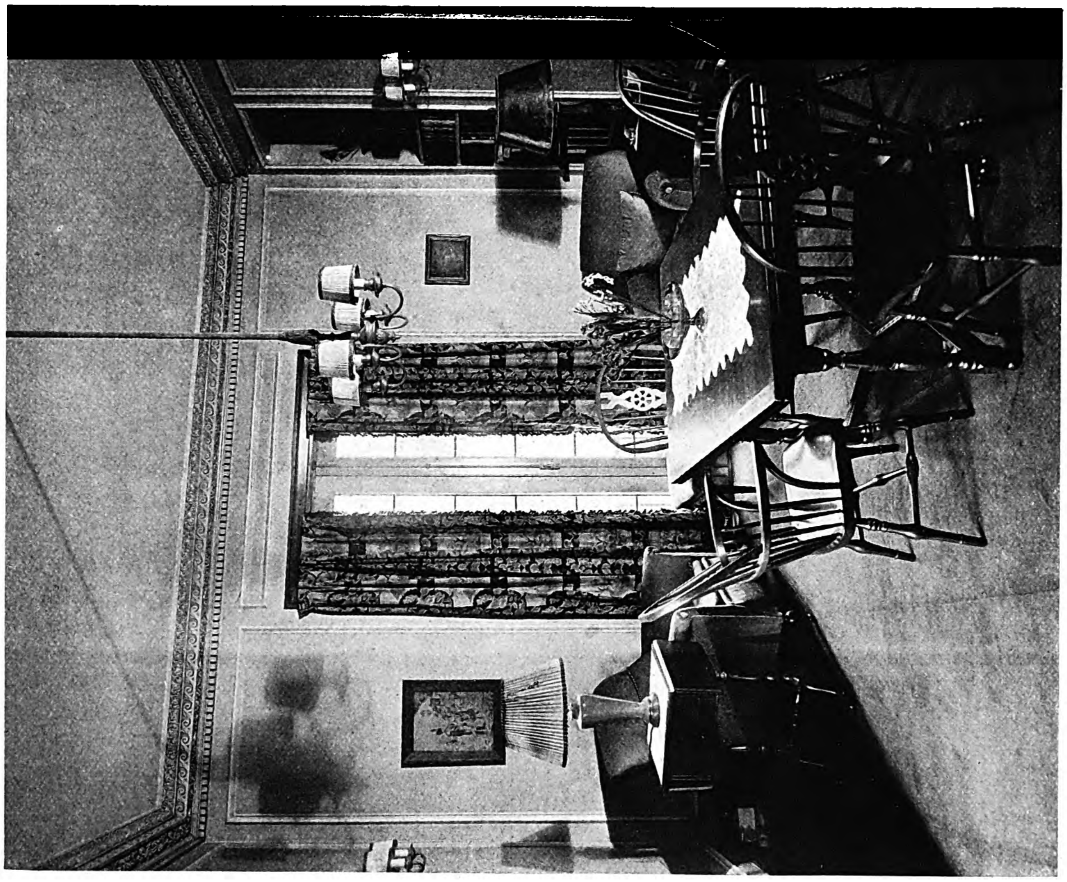


DETAIL IN HALL

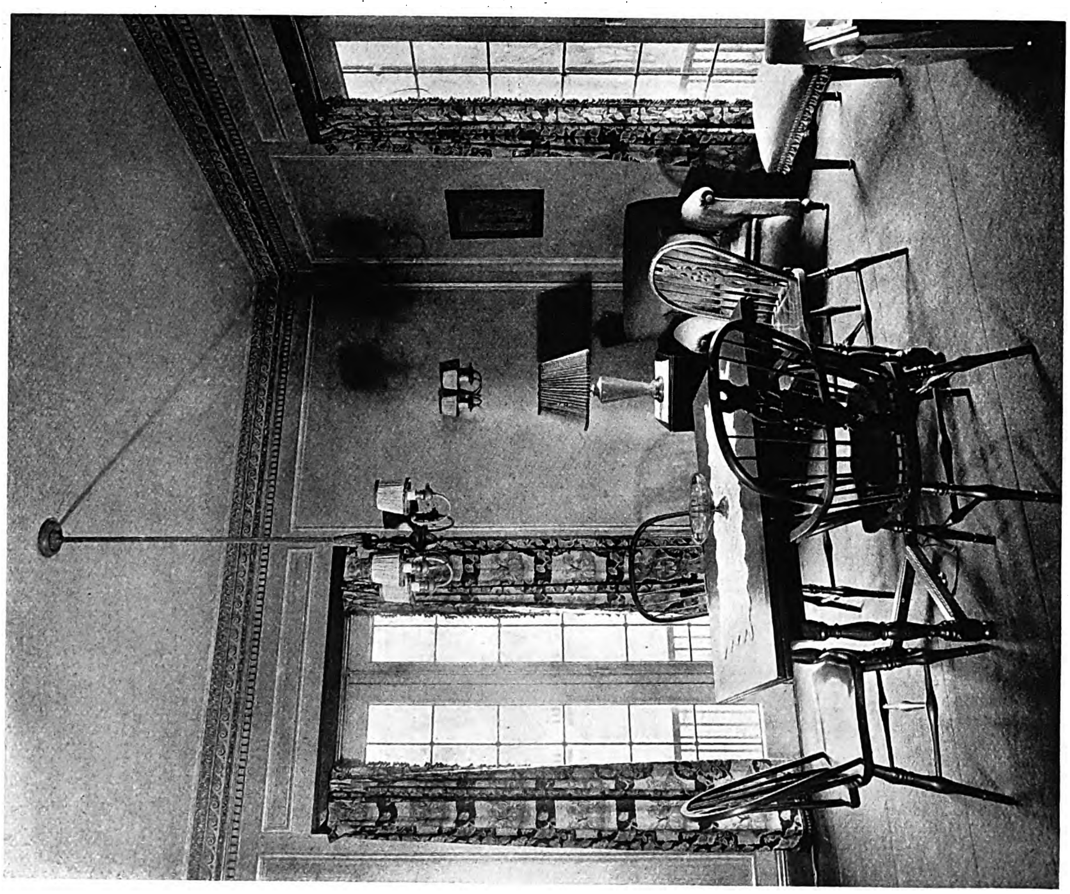


BEDROOM
RESIDENCE FOR KATHRYN M. HASKELL, CHICAGO
SIDNEY AND McDONALD LOVELL, ARCHITECTS ::

PLATE THIRTEEN



DINING ROOM



DINING ROOM
RESIDENCE FOR KATHRYN M. HASKELL, CHICAGO
SIDNEY AND McDONALD LOVELL, ARCHITECTS ::

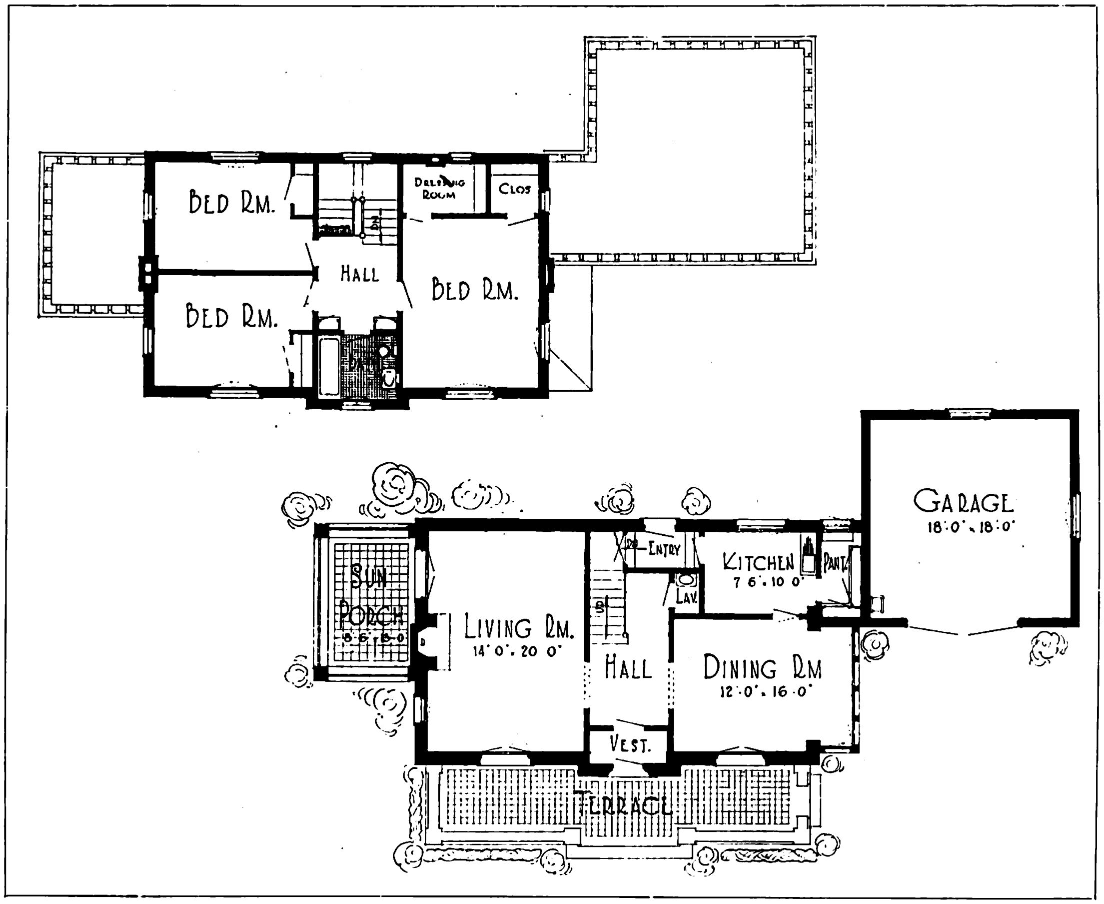


RESIDENCE FOR MR. HARRY J. STONE, CHICAGO
SIDNEY AND McDONALD LOVELL, ARCHITECTS ::

PLATE FIFTEEN



A GARDEN HOUSE
HAROLD HILL BLOSSOM, LANDSCAPE ARCHITECT



PLANS
RESIDENCE FOR MR. HARRY J. STONE, CHICAGO
SIDNEY AND McDONALD LOVELL, ARCHITECTS ::

of stylistic expression. It was based upon considerations of an abstract nature, which measured color activity from a purely architectonic standard."

Thus it will be seen that, out of a tangled mass of hitherto misunderstood and misinterpreted archaeological facts regarding color, some semblance of order is being obtained. The abstract breadth of Greek polychromy makes a knowledge of its principles of inestimable value to the architect of today. Therein lies the value of Mr. Solon's work.

As a means of making intelligible and acceptable his deductions, the author has chapters on "Color Phenomena," "Technique of Architectural Polychromy," "The Development of Color Interest Through the Contrivance of Plastic Form," and "Aesthetic Objectives in Greek Polychromy," thus introducing the reader to the scientific technique of the subject. It would seem very essential that any designer who proposes to use architectural color in any large way must have a knowledge of the phenomena of color in general. By such a grounding, the author seeks to make sure an understanding of his deductions regarding the application of color to architecture.

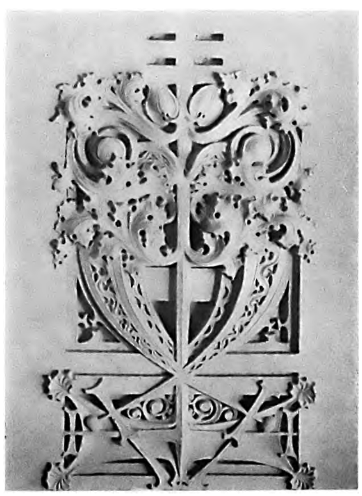
A chapter on "The Polychromatic Treatment of Architectural Detail by the Greeks," serves to familiarize one with the color treatment of the "elements" at the hands the Greeks, and here the real significant decorative character of color makes itself most felt. But we see how important it was that those small details of the entablature (which because of their distance from the eye lose definition) should be emphasized, and, further, how necessary it was that the color should at the same time enhance the structural message of the members. As the decorative parts of a structure are at the top, so color, a decorative medium, should be there also. Thus with intricate form and developed color concentrated above the eye, interest is so centered that the psychological effect is one of aspiration. How potent this effect was in the production of a religious awe, with regard to the Greek temple, can be sensed when we compare it with a similar effect of Gothic church architecture. Thus COLOR and FORM, in the Periclean Age, conspired to give to architecture the utmost emphasis that can be bestowed upon it.

Since Greek sculpture plays so large a part in Greek architecture, the author has very judiciously included a chapter on the "Polychromy of Architectural Sculpture." The value of such a discussion becomes very apparent when we remember that sculpture plays a "structural" as well as a "decorative" role in Hellenic architecture.

A critical bibliography, very necessary at this stage of the understanding of Greek polychromy, completes the work, rounding out the first serious attempt to order our knowledge regarding the effect of COLOR upon architecture, in the same way that knowledge of the effect of FORM, through the medium of "light and shade," has long since been ordered. It would seem that somewhere in the formal curricula of our architectural schools some study should be given to this very important, but misunderstood, (yes even dangerous) subject.

The volume is illustrated by nine plates in full color and many excellent text illustrations in halftone, and, barring such evident slips in proof reading as the one which makes "white the result of the maximum capacity for light absorption, black the maximum capacity for reflection," the book is mechanically satisfactory. It should find a place in the library of every serious minded, thinking architect.

ARCHITECTURAL POLYCHROMY. By Leon V. Solon. Architectural Record Company, New York. $60.00.



A TERRA COTTA ORNAMENT
BY LOUIS H. SULLIVAN

Gustav Borglum and the South

NEITHER DEFENSE NOR APOLOGY

By ROBERT CRAIK McLEAN

A comparison may be drawn between the American sculptor, Borglum and the Greek, Phidias, without touching upon the creative genius of either sculptors. Both have met the same experience from the lack of tact and intelligence among the beneficiaries of that genius. It is a pertinent comment upon the advance, or lack of it, in man's intelligence, to discover that two thousand years has not changed the attitude of the "common rabble" toward artistic genius, or that the "average citizen" does not comprehend that genius is the spark that sustains that civilization. Man's inhumanity to Art, which is especially true in regard to the general lack of appreciation of sculpture, the greatest of the fine arts, is at present exemplified in the treatment accorded Gustav Borglum in relation to his work at Stone Mountain, Georgia. Here is a sculptor, perhaps our greatest in rugged strength and virile imagination, discharged from that great work of spreading upon the face of a mountain the glorification of an earnest though lost cause, by a nobody who happens to be in charge of the organization that assumed the management of the enterprise. The low calibre of intellect that could perpetrate such a violation of all pretence to intelligence is as incomprehensible as it is hard to visualize the tremendous scope of imagination that lead Borglum to dream of this, the greatest attempt in pure sculpture. Combined with his artistic genius he had the force and persuasiveness that made others see and promote the enterprise. For nine years Borglum has labored in the dual field of the design and that of convincing the people whose sacrifices and triumphs this monument would commemorate, that it was possible of accomplishment, and then in changing a "moral" support to a financial one. Designing by day and lecturing by night has been the history of those years. The work of financing the project culminated in his inducing the national congress to order the minting of a million dollars in coins to aid the great enterprise. And, as though this was not enough, Borglum advanced some fifty thousand dollars from his private fortune so that no delay in the work should occur. In fact, Borglum has given to the South all that he possessed in artistic genius and physical and mental stamina, without thought of recompense other than a satisfied ambition as an artist and a patriotic gift to his country. Of course, as an individual, Borglum remains untouched. His ability is established and his fame untarnished among those who know the difference between a sculptor and a stone mason. The work will go on in his hands or it will remain a lasting disgrace, as it is intended to be a lasting credit, not only or chiefly, to the artist, but to the great section of the American people that has promoted and loyally supported it. Of course, in destroying such working models as were in his studio Borglum was entirely within his rights. Courts have decided, in relation to an architect's drawings at least, that drawings and models are the artist's "instruments of service" and, in no particular, part of the contract under which a design was executed. Of course, no sculptor worthy of the name will be found who will undertake the work so unjustly taken from the hands of its originator. Even the projected hiring of the local stonecutter—or milkman—to continue the enterprise will fail, as congress and the treasury will stop the issuing of the coins that represent the sinews of war in the erection of this war memorial, unless it is again placed in the hands of Gustav Borglum for execution. Of course, this is what those patriotic societies of the south, the Daughters of the Confederacy and others, will insist upon, and the first act in this movement will be the clearing-out of the persons and elements that unfortunately were given direction and whose bumptiousness and cupidity has been exemplified in the near-wrecking of the greatest and lasting patriotic movement that this country has seen—a movement that had its inception in the mind of this sculptor when asked to design a simple monument. Instead he presented his "dream," and his vigorous personality and belief in his ability to carry it out caught the imagination of the patriotic and intelligent. His "crime" was that he "smashed his models," for his contract with the monument association stated that he was not to copyright any of his material or "in any wise interfere with the full and complete right of the association to avail its self of the same, and of the ideas of the sculptor, or any part thereof, in the completion of the work contemplated." There is here no mention of working models and the interest of art demanded that they should not be left for some stone cutter to carve into a horrible example. By allowing some nobody, as head of the association, to forget that Borglum was an artist and not a hired laborer, the patriotic people of the South have placed themselves in an embarrassing position. Only the clearing of the field of its obstructing elements and a solid organization behind Borglum in the carrying out of the enterprise will save it. This, or Stone

Mountain will [illegible] as a patriotic reminder of Southern heroes, [illegible] littleness in its treatment of a great artist and in its attitude toward Art.

Obituary

ARNOLD W. BRUNNER, F. A. I. A.

By ROBERT CRAIK MCLEAN

AN architect of high attainments, Fellow of the American Institute of Architects, designer of many important buildings, not only in New York, his home city, but as far west as Minneapolis, Arnold W. Brunner, who died in New York on February 14 last, of pneumonia, was chiefly occupied in the greater work of what has come to be termed town-planning. In him the faculty for administration and design combined, so that his advice in large problems of arrangement was as valuable as his set drawings.

His architectural works were mainly of a public character, ranging from Columbia School of Mines and the College of the City of New York stadium, through numerous colleges, hospitals and monumental bridges to the great Art Center he designed for Central Park but which was vetoed by the people because of its encroachment on that pleasure ground. This would probably have been his crowning architectural achievement.

But his greatest labors, those that will last, a benefit to many American cities in the far future, were the product of his exceptional knowledge of the architectural problems of the American city, arising from increasing populations and new standards of living. His clear prescience in regard to the city plan, its arrangement of streets and parks in every phase of a city's physical being, was recognised and he was selected to serve upon commissions having charge of extensive municipal improvements. His work at Cleveland, as President of the Board of Supervision of Public Buildings and Grounds, has made that city one of the most livable in the United States. Similar services were rendered by him as a member of like bodies in Baltimore, Denver, Rochester, Albany and other cities. Mr. Brunner gave freely of his services to fraternal art societies. He was president of the Fine Arts Federation of New York; vice president of the National Sculpture Society; president of the Architectural League of New York; treasurer of the National Institute of Arts and Letters; vice president of the American Civic Association, and at one time served on the New York Board of Education. Mr. Brunner was not only energetic in carrying out his work, but forceful and independent in his dealing with people and problems. He constantly urged that our cities should be planned and made livable by men qualified through study and experience for the work, maintaining that the extreme difficulties in city adjustment were far beyond the abili[illegible] of any amateur. His position is stated in a senten[illegible] from his address before the National Institute of [illegible]rts and Letters in which he said:

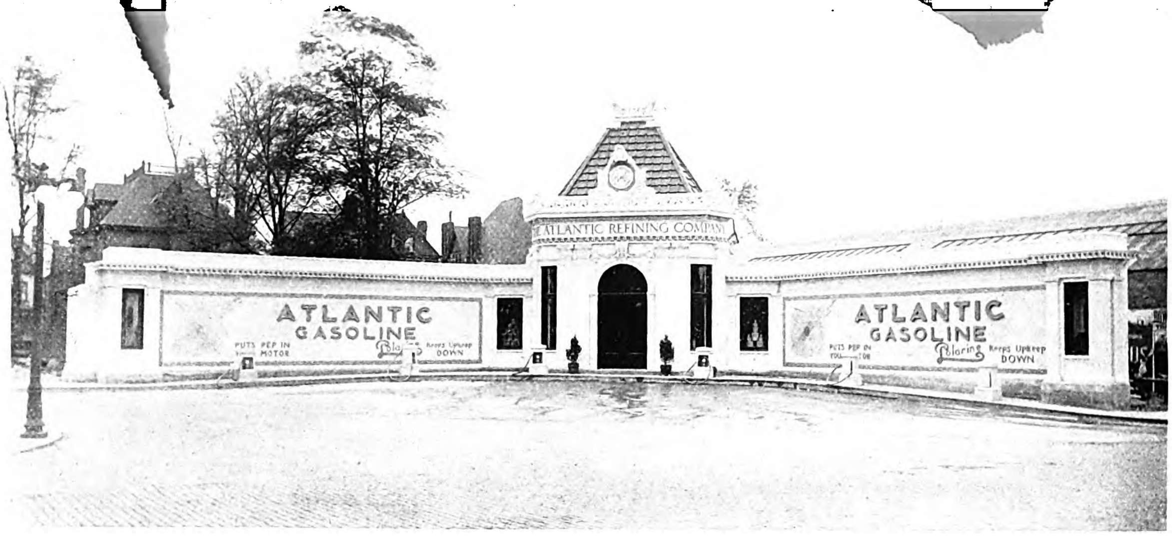
"Experience, patient study and constructive imagination are needed to increase the efficiency of a city as a working machine, and at the same time to secure the beauty that comes from order and fitness of purpose."

The personal high character, integrity and just dealing of Mr. Brunner is indicated in his action regarding his salary when acting as architectural advisor to the State of Pennsylvania in its Capitol Park development. A seven days wonder was created among politicians and newspaper offices when he refused twenty thousand dollars back salary due him for two years work, and suggested that his salary for the ensuing two years should be cut from ten thousand dollars a year to four thousand. At the time Mr. Brunner explained his refusal of the twenty thousand dollars on the ground that he was receiving six percent commission on a million dollars worth of work which he considered adequate pecuniary award.

Arnold W. Brunner was born in New York City, September 25, 1857, and received his architectural training at the Massachusetts Institute of Technology.

The firm of Darling and Pearson, of Toronto, for over forty years occupying a leading place among Canadian architects, is now composed of John A. Pearson, C. B. Cleveland and Jules F. Wegman. The name of Jules Wegman will be recalled by all of that coterie of live-wire draftsmen that formed the company of designers under the leadership of John W. Root in the days when the first "skyscrapers" occupied the boards in the offices of Burnham and Root. Then Harry Laurie, Jerry Cady, Walter Root, Jules Wegman and Shankland the engineer were among those heading the list, previous to the Exposition year of 1893. It was soon after that Mr. Wegman accepted a position with the Canadian firm, of which, for many years he has been its chief designer. It is not too much to say that this tardy recognition of his labors and talent is amply deserved, as a list of the Dominion's greatest buildings that have been designed by him and executed by his firm will attest. There are many architects long in practice who will silently congratulate him in at last achieving in fact what he has long held in merit, and many of his former companions in the Burnham and Root office will be glad to know "What has become of Jules Wegman."

Mr. Robert F. Daggett announces the removal of his offices from 962 Lemcke Annex to 922 Continental Bank Building, Indianapolis, Indiana.



FILLER STATION OF WHITE MAT TERRA COTTA, FOR ATLANTIC REFINING COMPANY, AT WILKINSBURG, PENNSYLVANIA. G. W.WILKINS COMPANY, ARCHITECTS. FENCE ALSO OF TERRA COTTA.

A Word as to the Filling Station

BEING A PLEA FOR A STRUCTURE OF GREAT DECORATIVE VALUE

DEVELOPMENT of the gasoline-propelled vehicle has brought with it a number of serious architectural problems. Leaving out of consideration the various perplexing traffic difficulties, a vital interest in which every architect must take, a whole group of new types of structure, unheard of before, have followed the development of the automobile. Among these may be mentioned the garage, private and public, the gasoline filling or service station, auto-bus terminal stations, now demanded in some of our larger cities, and auto parks, necessary in cities where ordinance restrictions make impossible



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GASOLINE AND OIL STATION FOR THE STANDARD OIL COMPANY, PRICE HILL, CINCINNATI, OHIO. W. C. OWEN AND COMPANY, ARCHITECTS. CREAM MAT TERRA COTTA, WITH POLYCHROME PANELS; LETTERS IN FRIEZE ARE GREEN.



FILLER STATION OF POLYCHROME TERRA COTTA FOR ATLANTIC REFINING COMPANY, SCRANTON, PENNSYLVANIA. JOSEPH FRANKLIN KUNZ, ARCHITECT.



FILLER STATION OF IRON TERRA COTTA FOR ATLANTIC REFINING COMPANY, EAST LIBERTY, PITTSBURGH. JOSEPH FRANKLIN KUNZ, ARCHITECT.



FILLER STATION FOR THE ATLANTIC REFINING COMPANY. JOSEPH FRANKLIN KUNZ, ARCHITECT.

street parking. In several cities, public markets, often one-story structures, covering a city block, have been increased to several stories, thus providing sheltered parking spaces approached by easy, two-way ramps. This utilization of space, presumably wasted otherwise, promises some relief for the ever-increasing parking difficulties and will doubtless bring forth some interesting architectural solutions.



FILLER STATION FOR ATLANTIC REFINING COMPANY, FRANKFORD, PHILADELPHIA, OF WHITE MAT TERRA COTTA, DECORATED WITH POLYCHROME.

Perhaps none of these structures relates itself so intimately to the city street system, or demands such careful architectural consideration as the filling station. Many of the best corner lots in our cities are being taken over each year for the erection of these necessary, utilitarian structures, many of which, unfortunately, have no architectural merit whatever. The result is that situations which should be embellished by interesting and beautiful architectural essays, are being sacrificed to ugly, commercial structures which tend to make more hideous than ever, our busy city streets.

Even in beautiful residence situations this is so often the case that frequently the proposal to erect a station in a neighborhood where there is any semblance of civic pride, is met with stiff oppositions and with injunctions. The owner of adjacent property, it seems, should have some protection against the encroachment of these ugly features.

One fine thing the corner lot filling station has done is to open up vistas in such a way that the auto driver has a better chance to observe the approach of vehicles at the street intersections than he could possibly do if a building occupied the site up to the property line.

Important as are these corners from a city planning and traffic standpoint, to say nothing of aesthetic considerations, it seems that they should receive serious study and that the structures themselves should be interesting and beautiful.

While most of our stations are painfully ugly, some of the oil companies are making an effort to provide pleasing park-like places embellished by beautiful little buildings and thoughtful architectural entourage. With the hope of raising the public taste and with a view to helping the architect who has an opportunity to design stations for the numberless, small, local dealers who are now springing up all over the country, photographs of a few interesting stations of various types that are now to be seen in some of our cities are presented. That this type of structure has wonderful decorative possibilities no one who has studied the problem will deny; and that some progress has already been made in certain quarters is also equally apparent. It is to be hoped that in the future this class of building,—now becoming so numerous, will receive the study so manifestly due it.



FILLER STATION FOR ATLANTIC REFINING COMPANY, FRANKFORD, PHILADELPHIA, OF WHITE MAT TERRA COTTA. FLASH ON SIGN IS RED, WITH CENTER OF PURE CERAMIC GOLD.

Measure for Loads on Stadia

Added stresses in the steel reinforcement of a concrete stadium due to the vigorous enthusiasm of the crowd were measured during a recent game by means of the carbon resistance strain gages developed by the Bureau of Standards, Department of Commerce. By using these gages it was possible to record automatically the variations in the loading of the steel when the crowd all rose in a body or stamped in time to the band.

Such mass movement, it has long been known, may increase the live load on the structure far beyond that caused by the people when sitting or standing still or moving at random, but until recently it has not been possible to obtain an accurate record of such sudden changes of stress. In this particular test the live load when the crowd was still was found to increase the stress in the steel by about 1,000 pounds per square inch, whereas 4,000 pounds would have been considered safe. Under the worst conditions occurring during the course of the game the movements of the crowd sometimes gave an additional 300 pounds per square inch.

It is pointed out, however, that the worst conditions from the point of view of safety arise when the crowd, in stamping rythmically, happens to strike the natural vibration period of the structure. It has been reported that under these conditions the stress has exceeded the static live load by as much as 150 per cent.

Tests of impact stresses in other stadiums are being made from time to time, and the data being accumulated are expected to be of great value as a guide in the design of such structures. Great uncertainty now exists as to the allowance to be made for impact stresses. It is desirable to keep down the weight, and hence the cost of the structure, but at the same time safety is indispensible.

In making the test the concrete was removed from the reinforcement over short lengths, and the gages were attached directly to the steel. After the test the holes were concreted over again.

A gage of this type depends for its operation on the fact that stacks of carbon rings undergo a change in resistance with change in pressure. It is so arranged that a small change in the distance between the points of attachment to the structure causes a change in the pressures on two of these carbon stacks, the pressure on one being reduced while that on the other is increased. The change in distance is caused by a change in the load carried by the steel.

This gage is connected by three electric wires to the indicating or recording device, and these wires may be of any desired length. Changes of load are followed very rapidly, and those lasting only a fraction of a second can be recorded as well as changes of longer duration.

Book Reveiws

DESIGN OF CONCRETE STRUCTURES. By Leonard Church Urquhart, C. E., and Charles Edward O'Rourke, C. E., Cornell University. McGraw-Hill Book Company, Inc.

During the last year, the first edition of Urquhart & O'Rourke's "Design of Concrete Structures" has made its appearance and has already been tried out well enough to justify one in recommending it as being especially worthy of commendation. As the authors state in their preface, this work is designed as a text-book to be used in the elementary courses on plain and reinforced concrete, and, as such, these men have made a decided contribution in this line. In addition to the author's aim, this book is worthy of a place in the library of an engineer or architect who has on his shoulders the responsibility of the engineering design of any structure where concrete is used

The work contains twelve chapters. The first seven of these are given over to the general theory of plain and reinforced concrete; and to the design and the investigation of the simple elements of structures, as beams, girders, slabs, columns and footings. Flat slabs and building frames come in for a careful and easily understood discussion, as well as footings supporting more than one column.

Chapter eight includes the complete design of a reinforced concrete building. Here the authors have given, in addition to this design, the engineer's detailed drawings and bending and reinforcing schedules for this building.

The next three chapters deal with the theory and design of retaining walls, arches, and slab, beam, and girder bridges; all of which interest the engineer engaged in building construction.

In the last chapter, one is given a concise and instructive article on forms. In this chapter, the authors have gone a long way in placing this subject before the student, the business man and the engineer.

All in all, "The Design of Concrete Structures" by Urquhart & O'Rourke is a real contribution to engineering literature and should be well received in the class room as well as in the library of any office connected with the business of building construction.—

C. R. McAnlis.

Franz Z. Warner, architect, announces the removal of his offices to 506-510 Bulkley Building, Cleveland, Ohio.

Howell & Thomas, Architects, announce the removal of their offices from 1900 Euclid Ave., to 4400 Euclid Ave., Cleveland, Ohio.